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CITY OF BATH



ANNUAL REPORT
OF THE
Medical Officer of Health

AND OF THE
CHIEF SANITARY INSPECTOR

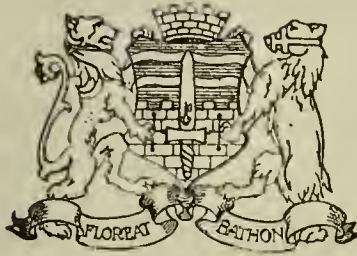
FOR THE YEAR

1933

JAMES F. BLACKETT, M.D. (Lond.), D.P.H.,
Medical Officer of Health.



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CITY OF BATH.

December, 1933

Mayor : Councillor Lt.-Col. the Hon. H. S. DAVEY, C.M.G.

HEALTH COMMITTEE.

Chairman : Alderman C. COWLEY.

The Mayor.

Aldermen :—

C. Cowley, F. W. Spear.

Councillors :—

L. G. Adams	Mrs. H. Cooke	S. J. Rawlings
W. Barrett	G. Lipscombe	W. J. Say
A. E. Cook	C. W. Maxim	E. J. Tiley

MATERNITY AND CHILD WELFARE COMMITTEE.

Chairman : Councillor Mrs. B. L. P. DEVENISH

The Mayor,

Aldermen C. Cowley, Preston King, M.D.,

Councillors :—

W. J. Baker	A. E. Cook	Mrs. H. Cooke	Mrs. B. L. P. Devenish
G. H. Gould	Capt. A. E. Hopkins	W. F. Long	C. W. Maxim
E. J. Wilding			

Co-opted Members :—

Mrs. Cordiner	Mrs. Latter Parsons	Mrs. Luker	Dr. Scott White
Mrs. Hocking	Mrs. Hickman	Mrs. Steven	

HOUSING COMMITTEE.

Chairman : Alderman C. H. LONG.

The Mayor, Aldermen C. H. Long, A. W. Wills

Councillors :—

S. J. Amblin	Mrs. B. L. P. Devenish	S. Day
S. D. Kennard	A. A. Hunt	E. Knox
		E. J. Wilding

STAFF, DECEMBER, 1933.

The following particulars are given in accordance with the request of the Ministry of Health.

PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health and School Medical Officer :

J. F. Blackett, M.D., (Lond), D.P.H.

Deputy Medical Officer of Health and Deputy School Medical Officer :

R. E. Thomas, M.D. (Lond), D.P.H.

Assistant Medical Officers :

Norah D. Pinkerton, M.B., B.S. (Lond.), B.Sc.

A. Michael Critchley, M.D., Ch.B., D.P.H., (appointed
1-4-33).

City Analyst : *H. F. Barke, F.I.C.

Chief Sanitary Inspector :

W. A. Craven, Cert. San. I. and Meat I.

Assistant Inspectors :

W. T. Blake, Cert. San. I. and Meat I.

J. W. Elliott, do. do.

S. D. Hawkins.

Administrative Tuberculosis Officer :

The Medical Officer of Health

Clinical Tuberculosis Officer :

A. Michael Critchley, M.D., Ch.B.; D.P.H.

Tuberculosis Health Visitor :

Mrs. B. E. Rose, S.R.N., Ex-Queen's Nurse

Health Visitors—Maternity and Child Welfare :

Miss E. Axten, S.R.N., L.O.S.

Miss I. Nash, S.R.N., Cert. Midwife

Miss G. Sparshatt, S.R.N., Cert. Midwife ; New Health
Visitors' Certificate

Clerks :

C. J. Pring, Chief Clerk

Miss E. M. Bartlett

R. G. Lavis

W. H. F. Perkins (part time)

Medical Officers to Ante-Natal and Infant Welfare Centres ;

Dr. R. E. Thomas
Dr. Norah D. Pinkerton
Dr. A. Michael Critchley

Superintendent of District Midwives :

*Miss O. L. Swann

District Midwives :

E. Hulbert
M. J. O'Loughlin
M. E. Thomas

Medical Officer to Venereal Diseases Clinic (at Royal United Hospital):

*Dr. R. Waterhouse

Medical Officer to Orthopædic Clinic :

*Miss Maud F. Forrester-Brown, M.D., M.S. (Lond.).

Public Vaccinators :

Dr. A. H. Duckett
*Dr. J. P. Hosford
*Dr. S. Marle

Vaccination Officer :

C. J. Pring

CITY ISOLATION HOSPITAL.

Medical Superintendent and Medical Attendant :

J. F. Blackett, M.D. (Lond.), D.P.H.

Consulting Medical Officer :

*Dr. O. A. G. Collins

Matron :

Miss M. Thompson, S.R.N., Cert. Midwife

PUBLIC ASSISTANCE DEPARTMENT.

Medical Officer to Frome Road Institution :

A. H. Duckett, M.B., Ch.B.

*District Medical Officers :

Dr. J. B. Bennett
Dr. T. C. Halley
Dr. J. P. Hosford
Dr. P. H. Knowles
Dr. D. Moodie
Dr. W. Morris

The Staff of the School Medical Department is given in my Report to the Education Authority.

*Part-time Officer of the Council

SUMMARY OF STATISTICS.

City and County Borough of Bath. Health Resort and Chief Town of Somerset.

Area of the Borough, 5152 Statute acres.

Situation—Latitude 51° 23' N., Longitude 2° 21' W.

Elevation—Varies from 50 feet above sea level on the lower banks of the Bath Avon to about 550 feet on the South and 700 feet on the North.

Mean elevation—269 feet above sea level.

Geological Formation—Oolitic Clays, Limestones and Sands; Lias and Gravel.

Water—Constant service of moderately hard spring water. Corporation Reservoirs have a total capacity of 63,151,000 gallons. Average daily consumption, 1933, 23.76 gallons per head; 1928-32 23.75 gallons.

Sewage disposal almost exclusively by water carriage. Treated at Saltford.

House refuse removed and cremated by the Sanitary Authority.

Population—1931 Census; Enumerated, 68,815; Resident, 68,375.

Number of inhabited houses, Census 1931, 15,599 (*i.e.*, structurally separate dwellings occupied by private families).

Number of families or separate occupiers, Census 1931, 19,435.

Years ...				1933.	1932.	Mean of 1926-30.	Mean of 1921-25.
Population, estimated	...	...		68,900	69,060	69,536	68,782
Rainfall (Mean of 65 yrs., 1866-1930, 31'04 ins)....				24 56	33.47	33'72	30'16
Rateable Value in October	...	£		566 088	565,767	491,895	424,806
Rates—Total per £	...	£		10/-	10/-	11/2	12/3
One penny General Rate produced	...	£		2,225	2,239	1,921	
Total nett indebtedness	...	£		2,010,389	1,902,971	1,183,799	660,571
Ditto per person	...	£		29 - 4 - 5	27 - 13 - 2	17 - 2 - 6	9 - 12 - 6
MARRIAGES—Number Registered	...	...		561	519	553	568
Rate per 1000 population.	Bath			16'3	15'0	15'9	16'4
Ditto.	England and Wales			15'7	15'2	15'4	15'7
BIRTHS—Number	...	Bath		750	786	834	1,013
Rate per 1000 population	...	"		10'9	11'4	11'9	14'7
Ditto.	England and Wales			14'4	15'3	16'8	20'0
Illegitimate births per 1000 Infants born	...	Bath		44	41	53	49
DEATHS—Number—Bath residents...	...	...		989	977	952	926
Nett rate per 1000 population,	Bath			14'4	14'1	13'6	13.4
Standardized rate for age and sex	"			10'8	10'5	10'2	10'0
Death Rate (crude), England and Wales				12'3	12'0	12'1	12.2
Death Rate (standardised)	"	"			9'7	10'3	10'9
INFANT MORTALITY—	...	Bath		52	41	47	62
England and Wales				64	65	68	76
Illegitimate Infants	...	Bath		121	156	79	116
DEATHS from Diarrhoea & Enteritis (under 2 yrs.)				5	3	4	3
Ditto. Rate per 1000 births,	Bath			6'7	3'8	4'5	3'3
Ditto. do. England and Wales				7'1	6'6	7'2	9'0
PRINCIPAL CAUSES OF DEATH—							
Pulmonary Tuberculosis	...	...		38	38	42	43
" Other " Tuberculosis	...	...		13	11	7	12
Influenza	...	...		65	45	31	37

SUMMARY OF STATISTICS--Continued

	Years	...	1933	1932	Mean of 1926-30	Mean of 1921-25
Pneumonia	57	52	53	48
Bronchitis	38	39	53	62
Cancer	133	132	127	122
Cerebral Hæmorrhage, etc.	49	65	56	78
Heart Disease	159	184	151	146
Arterial Sclerosis	88	66	61	31
Nephritis	44	47	38	28
Senile Decay	46	61	68	74
Seven principal "Zymotic" Diseases	12	7	13	14
Violence	40	23	37	29
DEATH RATES per 1000 population from—						
Pulmonary Tuberculosis	0.55	0.55	0.60	0.62
"Other" Tuberculosis	0.19	0.16	0.09	0.17
Seven principal "Zymotic" Diseases	0.17	0.10	0.19	0.20
Influenza	0.94	0.65	0.44	0.53
Pneumonia	0.83	0.75	0.76	0.69
Bronchitis	0.55	0.56	0.76	0.90
Other Diseases of Respiratory Organs	0.25	0.28	0.19	0.12
Cancer	1.93	1.91	1.82	1.77
DEATHS at various age periods—						
Under 1 year	39	32	40	63
1 to 5 years	16	15	18	18
Between 5 and 60 years	238	228	248	253
Over 60 years	696	702	647	592
INFECTIOUS DISEASES—Cases notified						
Diphtheria	71	92	52	84
Scarlet Fever	207	118	186	113
Enteric Fever	—	2	9	3
Small-pox	—	—	2	—
Erysipelas	10	16	25	22
Ophthalmia Neonatorum	14	9	9	10
Puerperal Fever...	3	4	3	1
Puerperal Pyrexia	11	17	—	—
Pulmonary Tuberculosis	97	86	67	79
"Other" Tuberculosis	36	14	19	17
INFECTIOUS DISEASE—Attack rates per 1000 population—						
Diphtheria	1.03	1.33	0.74	1.22
Scarlet Fever	3.00	1.71	2.66	1.63
Enteric Fever	—	0.03	0.13	0.04
Erysipelas	0.15	0.23	0.36	0.32
Puerperal Fever...	0.04	0.06	0.04	0.02
Puerperal Pyrexia	0.16	0.25	—	—
Pulmonary Tuberculosis	1.41	1.25	0.96	1.15
"Other" Tuberculosis	0.52	0.20	0.27	0.24
NUMBER OF DEATHS from—						
Diphtheria	4	1	2	2
Scarlet Fever	—	—	2	1
Enteric Fever	—	—	1	—
Erysipelas	2	4	2	1
Measles	2	2	2	4
Whooping Cough	1	1	2	4
Puerperal Fever...	—	3	—	1
DEATH RATES per 1000 population from—						
Diphtheria	0.06	0.01	0.02	0.03
Scarlet Fever	—	—	0.02	0.01
Enteric Fever	—	—	0.02	0.01
Erysipelas	0.03	0.06	0.02	0.02
Measles	0.03	0.03	0.03	0.05
Whooping Cough	0.01	0.01	0.03	0.05
Puerperal Fever...	—	0.04	—	0.02
VACCINATION—Percentage of Infants vaccinated						
			15*	12	17	21

*January to June only.

TO HIS WORSHIP THE MAYOR AND TO THE ALDERMEN AND
COUNCILLORS OF THE CITY OF BATH.

LADIES AND GENTLEMEN,

The Report which follows has been prepared in accordance with the statutory duty imposed by Article 14 of the Sanitary Officers Order, 1922, and with Circular 1346 of the Ministry of Health. It is the 15th for which I have been personally responsible and forms part of a series which goes back to 1866, when Dr. C. S. Barter was appointed as the first "Officer of Health." Dr. Barter was followed by Dr. Brabazon in 1876 and Dr. Symons in 1896. There is an amazing difference between the earliest and the latest of the series, particularly in regard to the nature of the conditions described and to the scope of the Health Department's activities. A study of the intermediate reports, however, would show that changes which seem to be almost revolutionary in character, really represent an ordered development based on the solid foundations laid down by our predecessors. It is our business to see that progress is maintained.

The section referring to the provision now made for the institutional care of maternity patients is of special interest, since it describes our first year's experience of an important and comprehensive scheme (page 18). The number of mothers dealt with was increased by about two-thirds when compared with figures at the Rivers Street Home prior to its closure at the end of 1932. To study the variety of disabilities from which so many of the mothers were suffering is to realise what an immense amount of relief from danger and discomfort must have been afforded by the skilled nursing provided and the amenities to be found in the Maternity Ward at the Royal United Hospital. This joint enterprise of the Council and the Hospital seems likely to prove of real and lasting value to the community.

It will be noted that the Council's medical services have been to some extent reorganised in order to bring about a closer co-ordination from a medical point of view between the various departments (pages 14 and 21). After certain part-time duties had been transferred, additional help equivalent to about half the services of a whole-time medical officer were secured by a new appointment. This has been

fully utilized in the carrying out of extra work which it was essential should be done if the widespread obligations now placed on a Health Department were to be met in a satisfactory manner.

Questions relating to Clearance Areas, and to rehousing needs, received much attention from the Housing Committee during 1933. When schemes recently placed before the Council and those already being carried out by the City Improvements Committee are completed, one of our most difficult problems will have been largely solved. It must not be forgotten for a moment, however, that although conditions enabling effective action to be taken seem particularly favourable and public interest has been aroused, much yet remains to be done before schemes can be translated into accomplished facts. The continued efforts and good will of all who have the matter at heart are therefore essential if we are to achieve the results which, perhaps more nearly than ever before, are now within our reach.

I would like to make a brief record here of the death in 1934 of Dr. O. A. G. Collins at the age of 77. For many years prior to 1924, when he was appointed the Honorary Consulting Physician, Dr. Collins was medical attendant at the Isolation Hospital; and from the time of Dr. Symons' death in 1917 until the end of 1919 he was Acting Medical Officer of Health. He was a skilled physician, whose character and disposition earned for him the sincere respect and the affectionate regard of all with whom he came in contact.

Once more I have to acknowledge with gratitude the constant help and encouragement I have received from the Chairmen and members of the various Committees with which the Health Department is associated; and to offer my sincere thanks to the whole of the staff for the loyal and efficient way in which they carry out the Council's work. I wish also to thank the City Engineer, the Waterworks Engineer, and the City Treasurer for information relating to their Departments contained in this Report.

I remain, Ladies and Gentlemen,

Yours faithfully,

JAMES F. BLACKETT,
Medical Officer of Health.

Bath, July, 1934.

Report of the Medical Officer of Health for the City of Bath for the Year 1933.

Section A.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

The City of Bath is a County Borough with an area of 5,152 acres, a boundary line of 14 miles, and a population which the Registrar-General estimated to be 68,900 at the middle of 1933.

Bath is to a great extent a residential rather than an industrial city, but there are several large works in which engineering, cabinet making, the manufacture of cloth, and other industries, are carried on. Large numbers of visitors come here also to use the baths and for other purposes. These provide occupation and are a source of livelihood to a considerable section of the population.

The trade depression of recent years has made unemployment a serious problem in Bath as elsewhere, though we suffer less severely than some of the large industrial areas. Fortunately, too, the figures for 1933 were better than those for the previous year. At the end of 1933 the number of unemployed Bath people over 16 on the register of the local Employment Exchange was about 2,350, as compared with nearly 3,000 at the end of 1932 (the figure for the year given in my last report was an underestimate). Unemployment below 16 is undoubtedly much less than it would be if the usual school leaving age had not been raised to 15 instead of remaining at 14 as it still is in most areas. Young people between 14 and 15 are only excused school attendance in Bath if they are in approved employment. See also my School Report for 1933, page 35.

I know of no occupation which has any material influence on the public health. There were no causes of death or invalidity during 1933 which require to be specially noted.

Details of the number of houses and families, together with much other statistical information, may be found in the Summary on pages 6 and 7.

Vital Statistics. A detailed summary of the vital statistics for 1933 and for several previous years is given on pages 6 and 7. The chief points of interest about those for 1933 are as follows :—

The birth-rate showed an accentuation of the gradual downward tendency which has been noted during recent years. In proportion the drop was less than that shown by the country as a whole, though our actual rate is of course much lower.

		1933.	1932.	Mean of 1922-31.	1900.
Birth-rate, <i>i.e.</i> , births per 1,000 population.					
Bath	10.9	11.4	12.9	19.1	
England and Wales ...	14.4	15.3	17.7	28.7	
Number of births in Bath, assuming a population of 69,000	752	787	890	1318	

The marriage rate was 16.3 per 1,000 of the population. This is rather higher than last year (15.0), and not materially different from that for England and Wales (15.7).

The infant mortality is the number of deaths of children under one for every thousand births during the year. Our rate was 52, as compared with 64 for the country as a whole. Of the 39 deaths which this represents, 15 took place within the first week of life, and another 11 between that and the end of the third month.

The death-rate when standardised for the age and sex constitution of our population was 10.8. In 1932 it was 10.5. A generation ago (1900) it was 15.2. A simple statement of the death-rate, however, is of little value under existing conditions unless it is interpreted in the light of the many complex and changing factors by which it is influenced,

The following extracts from the vital statistics are given in the form suggested in the Ministry of Health's Circular No. 1346.

			Total.	M.	F.		
Live Births {	Legitimate	....	717	358	359	} Birth Rate, 10.9
	Illegitimate	....	33	17	16	
Stillbirths		....	19	8	11	Rate per 1,000
						total births, 24.7	
Deaths	....	...	989	426	563	Death-rate, 10.8
Deaths from puerperal causes :—						Rate per 1,000 total	
				Deaths.		(live and still) births.	
	Puerperal sepsis	...	0			0.00	
	Other puerperal causes		4			5.20	
				<hr/>		<hr/>	
	Total	...	...	4		5 20
Death-rate of infants under one year of age per 1,000 live births :—							
Legitimate, 49 ; Illegitimate, 121 ; Total, 52.							
	Deaths from Measles (all ages)					2	
	,,	Whooping Cough (all ages) ...					1
	,,	Diarrhœa (under 2 years of age)					5

Section B.

GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

Laboratory Facilities. The arrangements available for the examination of clinical material are indicated on page 34. After the end of March sputum examinations were done at the Tuberculosis Dispensary by Dr. Critchley instead of at the Somerset County Laboratory. The analyses of water, milk and foodstuffs, are carried out almost entirely by the City Analyst, who is a part-time officer, in his own laboratory. For the nature and amount of work done see pages 35 and 49.

Ambulance Facilities. (a) Infectious cases are dealt with by the motor ambulance kept at the City Isolation Hospital. (b) Non-infectious and accident cases. The City Council has two ambulances and the St. John Ambulance Association one, available for ordinary cases at reasonable charges.

Nursing in the Home. Although no actual home nursing is carried out by the Council's own staff, financial responsibility has been accepted in regard to certain types of illness, more particularly under the Maternity and Child Welfare scheme and for cancer (page 37). During 1933 payments under these headings covered 2,810 visits and amounted to £118. This is exclusive of the district midwifery services. The work is done for the Council by that very valuable institution, the Bath District-Nursing Association under arrangements which were described in detail on page 16 of my report for 1932.

For ordinary district nursing duties the Association employs 9 fully qualified Queen's Nurses. During the year ended 31st March, 1934, they paid 39,829 visits to 1,337 patients. In 1933 the scope of the Association's work was widened and its influence increased by the introduction of a contributory scheme which has already received very encouraging support.

Hospital Accommodation. A description of the principal hospitals in the City and of the co-operation which exists between the Council and the voluntary hospitals was given in my last report on pages 17-19. As no material alterations have since taken place it is not necessary to repeat the information here.

Frome Road Infirmary continues to present its own particular problems. It is not always realised that this institution is easily the largest hospital in Bath, although of course the proportion of patients acutely ill is comparatively small. The accommodation ought to be looked upon in relation to the general hospital accommodation of the City and careful consideration given to the part it might take in a co-ordinated system for the benefit of the community as a whole.

It is of course possible for the Council to provide hospitals under the Public Health Acts as well as, or instead of, under the Poor Law. In other words, persons for whose treatment it is necessary to accept responsibility might be dealt with in a Municipal Hospital because they are ill, rather than in a Poor Law Hospital because they are poor. To do this would smooth out many difficulties and go far to remove existing prejudices. It would also be in accord with modern ideas of social service which tend to regard poverty as subsidiary to

other needs of the individual. Unfortunately it seems very doubtful whether Frome Road Infirmary could be "appropriated" for this purpose, because neither structurally nor administratively can it be sufficiently separated from the Public Assistance Institution. As a hospital building, too, it is in many respects unsuitable for its purpose, although everyone agrees that work of the highest value is carried on there. From the clinical point of view, not only does it offer opportunities of observation and research which might well be more fully utilised, but there are always patients who would benefit by being brought into closer touch with expert medical opinion in the City than is afforded by an occasional specially arranged consultation. There is a lack of the pooled experience which could be made available if, from the staff point of view, some scheme for a more intimate linking up with other hospitals could be devised.

It is important that as opportunity offers, Frome Road Infirmary should be developed along lines which make its general usefulness commensurate with its size and importance.

Local Government Act, 1929. The important modifications relating to the City medical services described in the last report (page 14) came into force as from April 1st, 1933. The Medical Officer of Health is now responsible for the general oversight of the medical services of the Public Assistance Committee as well as of other Committees of the Council. One effect of the increased co-ordination between the various departments has been to relieve the Council of the need to pay a substitute when the Medical Officer at Frome Road House is on holiday or sick leave. Conversely, the services of that officer are available for other work when the need arises.

Poor Law Medical Out-Relief. The suggestion made a year ago that modifications in this service were desirable was followed up by a special report to the Public Assistance Committee towards the end of the year. A good many difficulties have to be overcome before a change can be made, but the whole matter is receiving careful and active consideration. It is hoped that some means of introducing an "open-choice" system comparable with that in force under the National Health Insurance Acts may be found possible.

CLINICS AND TREATMENT CENTRES

15

DAYS AND TIMES OF ATTENDANCE.

	See also page	Monday	Tuesday	We'n'day	Thursday	Friday	Saturday
Infant Welfare							
Centres :—							
*Blue Coat House ...	21		2.30—4			2.30 4	
Walcot ...	"			2.30—4	2.30—4		
Oldfield Park ...	"			2.30—4			
†Southdown ...	"		9.30				
‡Odd Down ...	"		to 11.15				
Ante-Natal Clinics :							
45 Rivers Street ...	16		2.30—4				
*Blue Coat House ...	"			10—12			
* Maternity & Child Welfare							
Dental Clinic ...	23						10—12
Mothers							
Special Clinic for ...	25	...	...	By appointment		...	...
Tuberculosis—							
Dispensary... ..	40	10—5				2.30—8	
Artificial Sunlight Treatment ...	41	...	...	By appointment		...	...
Mental Treatment ...	...	...	...Friday	by appointment		...	...
Venereal Diseases							
Clinic—Men ...	42					5—6.30	5—6.30
Women ...	"		5—6.30				
School Clinics—							
*Inspection ...	...	2—4.30	2—4.30		2—4.30	2—4.30	
*Eye ...	...	10.30		10.30			
*Dental ...	...	10—5	10—5	10—5	10—5	10—5	
Ear, Nose and Throat :							
*Blue Coat House ...	...	9.30	9.30	9.30	9.30	9.30	9.30
Royal United Hospital	...				2.0		
Ear, Nose and Throat Hospital ...	...				9.30		
*Minor Ailments Clinic ...	...	2—4.30	2—4.30	2—4.30	2—4.30	2—4.30	9.30—11
*Orthopædic After-care Clinic ...	...			2.30—4			
Orthopaedic Hospital Massage ...	...	...	...	Daily by appointment.	...	...	...

* These Clinics are held at Blue Coat House.

† 2nd and 4th Tuesdays of Month

‡ 1st and 3rd Tuesdays of Month

Institutional Provision for the Care of Mental Defectives. The facilities available were described in some detail in my last report (page 15). No material alterations have taken place.

MATERNITY AND CHILD WELFARE.

The Council's complete scheme for Maternity and Child Welfare includes Ante-Natal Clinics, the supervision of midwives, a district Midwifery Service, Maternity Beds, a Health Visiting Department including supervision of boarded out children under the Children Acts, four Infant Welfare Centres, the provision of Milk to Mothers and Children, a Dental Service, the supply of Maternity Outfits, a Clinic for giving advice on Birth Control to married women for whom further pregnancies would be detrimental to health, and schemes for dealing with Crippling Defects, with Ophthalmia Neonatorum (page 61) and with Puerperal Fever and Puerperal Pyrexia. The paragraphs which follow include a summary of the work done during 1933.

Ante-Natal Clinics. The number of new patients was 37 per cent. of all births registered (last year this figure was 39 per cent). This is a very satisfactory figure if, as we believe to be the case, the emphasis we lay on the importance of ante-natal supervision is leading an increasing proportion of expectant mothers, who do not come to the Clinics, to consult their own doctor or midwife. The facilities for in-patient treatment and observation available in connection with the Maternity Ward at the Royal United Hospital proved of great value—see also page 20.

The following are some figures for 1933 :—

			Rivers Street.	Blue Coat House.
Day	...	...	Tuesday	Wednesday
Time	...	...	2.30—4	10—12
Medical Officer in charge			Dr. Thomas.	Dr. Pinkerton.
Number of sessions held			49	52
Number of new patients			176	125
Total attendances	...		639	549
Average per session	...		13	11
Home visits (ante-natal) by City Midwives				1,550

MIDWIVES.

During 1933 the number of midwives signifying their intention to practise in the City was 26. Of these, 16 worked solely in connection with public institutions, including five at the Royal United Hospital. For the first time since the passing of the Midwives Act of 1902—"an Act to secure the better training of midwives and to regulate their practice"—the list contains the name of no one who was certified simply by virtue of having been "In practice in 1901." So probably ends for us the era of the untrained midwife. That it should be so is in the best interests of everybody concerned, even though it is true that in spite of their lack of training, some of the women of an older generation practised their art with conspicuous ability and devotion.

The number of confinements attended by all midwives was 647—last year it was 589. On 304 occasions no doctor was present. A doctor was previously engaged in 124 cases, and was called in owing to some emergency for the remaining 219. (811 births were registered during the year).

Altogether, a doctor was called in under the Rules of the Central Midwives Board on 274 occasions for various emergencies in connection with births and miscarriages. These emergencies may be grouped as follows :—

Complications of labour	...	...	119
Ante-natal conditions	...	...	87
Post-natal condition of mother	...	...	27
Unsatisfactory condition of child	...	...	41

The Medical Officers act as Inspectors of Midwives and all midwives are visited regularly. No serious breach of the rules of the Central Midwives Board came to our notice in 1933.

City Midwives. For many years the Council has been financially responsible for a district midwifery service carried on with the help of the Bath District-Nursing Association. As a measure of economy and having regard to the number of cases attended, it was decided in the spring of 1933 to reorganise the system on a basis of three whole-time midwives instead of four. With additional help to cover holidays and emergencies the new arrangements have

worked fairly satisfactorily. Owing to the large area to be covered, however, the scheme will need further revision if there is any material increase in the number of cases to be attended.

		1933.	1932.	1931.
Number of cases	....	282	279	338
Net cost to the rates year ended				
March 31st, after deducting				
patients' payments....	....	£330	£295	£213

Midwifery Fees paid to Doctors under section 14 of the Midwives Act, 1918. The liability incurred during the year ending March 31st, 1934, was £347 and the amount recovered from patients was £129. The Council has power to recover these fees from the patients or those responsible for her unless they are satisfied that "by reason of poverty" this should not be done. Claims for remission are dealt with by a Special Committee of the Maternity Committee formed in April, 1931.

Sterilised Maternity Outfits are kept at the Health Office and may be obtained by midwives or on their recommendation. They are supplied at cost price, or if the circumstances justify it, either at a reduced charge or free. The demand is comparatively small.

MATERNITY BEDS.

At the end of 1932 the City Maternity Home at 44, Rivers Street was closed and the work transferred to the new Maternity Ward at the Royal United Hospital. The chief points in our agreement with the Hospital are these :—

The Hospital to provide a 20 bed maternity unit and to allocate 10 beds to patients nominated by the Council.

The Council to pay half the capital cost (the actual sum paid was £3,750) and to pay the maintenance charges of 10 beds at a rate corresponding to the average maintenance costs of all patients in the Hospital. During 1933 this was £3 1s. 10d. a week for each patient. During 1934 it is to be £2 17s. 2d.

Fees charged to City patients to belong to the Council.

City patients may be attended at the Hospital by their own doctors.

The agreement to be terminable after seven years by two years notice. In the event of termination the Hospital to repay the capital contributed by the Council.

Two members of the Council and the Medical Officer of Health represent the Council on the Hospital Board and on certain Committees.

These arrangements came into force on January 1st, 1933.

A summary of our experience during the first year is given below and deserves very careful study. It suggests that the Council's scheme, which was drawn up after prolonged consideration, is likely to meet a very real need on lines which may well have much more than local interest. While certain basic principles have been accepted, the scheme is sufficiently flexible to meet any calls likely to be made upon it for a good many years to come. One noticeable feature which it is a pleasure to record is the good will and the desire to help which has been shown by everyone who has been brought into touch with this branch of our work.

Number of patients admitted during 1933—

For confinement, with or without previous ante-natal treatment ...	...	...	165
For ante-natal treatment only	....	....	10
Admitted during puerperium	...	...	1
			<hr/>
			176
			<hr/>

Number of "patient-days"—

Ante-natal	...	...	791
Confinement and after	...	...	2472
			<hr/>
Total	....	...	3263
			<hr/>
Total available	...	...	3650

Percentage of available accommodation actually used, 89.

Details relating to 165 confinements:—

Type of case.	Primi- para.	Multi- para.	Total.	Attended ante-natal Clinic,
Normal or without serious abnormality	42	47	89	65
Cæsarean Section ...	13	4	17	10
Abdominal hysterotomy and removal of non-viable fœtus —	—	2	2	1
Albuminuria	6	5	11	5
Ante-partum hæmorrhage	—	4	4	3
Difficult labour ...	9	1	10	6
Premature labour ...	2	1	3	2
Ill-health, not due to pregnancy	5	15	20	18
Various other ...	4	5	9	6
	81	84	165	116

Maternal deaths (see page 21)	... 2
Stillbirths ...	... 9
Neonatal deaths of infants	... 8

CLINICAL NOTES:—

Of the Cæsarean cases, 13 were for pelvic contraction or disproportion and 4 for toxæmia or other disease. One maternal death occurred and there were 2 stillbirths and 2 neonatal deaths.

The abdominal removal of a non-viable fœtus was performed in one patient because of severe heart disease and in the other for high blood pressure.

The mothers with albuminuria all did well, though there were three stillbirths.

In all the ante-partum hæmorrhage cases both mother and child did well.

The "ill-health" group includes four cases of heart disease, one of pleurisy, one of pulmonary tuberculosis, two of kidney disease, and several of debility and bad varicose veins. Except for one child who died, all the mothers and children did well.

The miscellaneous cases included two of puerperal mania, one of severe post-partum hæmorrhage and one of primary inertia.

Of the 10 patients given ante-natal treatment who were afterwards confined at home, 5 had severe vomiting at third or fourth month, 2 had albuminuria, 1 gonorrhœa, 1 hydramnios, and 1 a breech presentation.

The 9 stillbirths were associated in 3 cases with maternal albuminuria, in 3 with obstructed labour, and in 1 with ante-partum hæmorrhage. In 2 other cases the cause was uncertain.

Of the 8 neonatal deaths of infants, 2 were associated with toxæmic conditions of the mother, 3 with difficult labour, and 3 with prematurity or malformation.

Maternal Mortality. There were four deaths due to causes associated with childbirth. This gives a maternal mortality of 5.2. No deaths from puerperal sepsis were recorded. Details of the cases are as follows :—

(a) Died at the Royal United Hospital while under anæsthetic for Cæsarean Section. Not in a City bed.

(b) Primipara age 21. Booked midwife three months before confinement. Had ante-natal supervision. Doctor called in and patient sent to Royal United Hospital, apparently in good condition, for prolonged labour with breech presentation. Collapsed day after delivery.

(c) Age 41. Pregnancy stated not to have been realised until seen by doctor in labour. Sent to Royal United Hospital for unsatisfactory general condition. Cæsarean Section showed concealed hæmorrhage. Suffered from heart disease and died five days later from heart failure.

(d) Died in Royal United Hospital from peritonitis associated with chronic inflammation and sub-involution of the uterus. Last pregnancy ended six months previously.

Health Visitors. There are three whole-time Health Visitors, all of whom are fully trained nurses. For reasons given in my last report a half-time assistant, also fully trained, was added during 1933. Her duties are mainly connected with the Infant Welfare Centres.

The Visits paid during 1933 were as follows :

To children under one year	..	..	3,757
To children between one and five	..	..	5,933
Others	..	..	1,224
			<hr/>
			10,914
			<hr/>

No single factor in the whole scheme for maternity and child welfare is of more importance than home visiting, since it offers the most favourable conditions for discussing the special problems affecting each particular infant.

INFANT WELFARE CENTRES.

Two important changes became possible in April, 1933, as a result of the reorganisation of the City Medical Staff. Both at Walcot and at Southdown the centre became far too congested to allow the work

to be carried out satisfactorily. An extra session a week was, therefore, added at Walcot, and the Southdown sessions were held weekly instead of twice a month.

There were during 1933 four Centres.

1. Blue Coat House, established (at Rosewell House) in 1913.
Sessions on Tuesday and Friday afternoons.
2. Walcot, at Snow Hill Hall. Established in 1918.
Sessions on Thursday afternoons during the first three months and for the remaining nine months on Wednesday and Thursday afternoons.
3. Twerton, at Oldfield Park Baptist Schoolroom.
Established in 1919. Sessions on Wednesday afternoons.
4. Southdown, at St. Barnabas Hall. Established in 1929.
Sessions on Tuesday mornings twice a month until the end of March, and then weekly.

		Blue Coat House.	Walcot.	Twerton.	Southdown.
Number of sessions	...	92	73	46	39
Attendances of children		3802	2345	1453	1435
New cases included in above		238	126	102	71
Average attendance of					
Infants per session	....	41.3	32.1	31.6	36.8

This table shows that there were 9,035 attendances at 250 sessions, an average of 36.1 per session. (In 1932 the figures were 8,314; 211; and 39.4).

A doctor and two health visitors are always in attendance, together with a number of helpers from the various branches of the Infant Welfare Association. It is impossible to speak too highly of the assistance we have received for so many years from these voluntary workers. Without their aid, indeed, we could not carry on the Centres on the present lines. It may be added that when it became necessary to double the number of sessions at Walcot and Southdown, we were at once offered the additional help required and this has been given in the generous spirit to which we have always been accustomed. Separate reports are published dealing with the voluntary side of the work.

SUPPLY OF MILK TO NECESSITOUS MOTHERS AND CHILDREN.

	1933.	1932.	Average 1926-30.
Average daily number of individuals receiving free milk	335	310	132
Average daily distribution in gallons (dried milk counted as if reconstituted)	40	38	17
Approximate cost for year ended 31st March following	£1,384	£1,264	£685

The amount of milk distributed is large and showed a still further increase. Very careful enquiries are made to ensure that the supply is limited to those entitled to it under the income scheme approved by the Committee. There is some evidence that 1933 may prove to have been a 'peak' year.

Dental Service. By arrangement with the Education Committee the School Dental Department is available for the treatment of expectant and nursing mothers, and the Saturday morning sessions are now a permanent part of the Maternity and Child Welfare scheme. The figures for 1933 include the following:—

Number of sessions	40
New patients called to Clinic	40
Patients actually attended (28 new and 13 old)	41
Total attendances... ..	111
Extractions	119
Fillings	4
Scalings	10
Dentures (10 patients)	15

Institutional Provision for Unmarried Mothers, Illegitimate Infants and Homeless Children is available:—

(a) at Frome Road House through the Public Assistance Committee:

(b) at the Bath Vigilance and Rescue Association Home at 12, Walcot Parade.

Infant Life Protection. The duties laid down in Part I. of the Children Act as amended by the Children and Young Persons Act of 1932 are carried out by the Maternity and Child Welfare Committee. With certain exceptions, persons who undertake or intend to undertake for reward the nursing and maintenance of one or more children under nine years of age must give notice of the fact to the Medical Officer of Health. The necessary enquiries are made by him and by the Health Visitors, who follow up each case by regular visits to the homes. The Local Authority has power to fix the number of infants to be retained in any house and to order removal for non-compliance with conditions indicated in Section 5.

Number of Names	Foster Parents.	Infants.
On Register at end of 1932 ...	31	32
Added during the year ...	21	36
Removed during the year ...	19	21
On Register December 31st, 1933	33	47

Five of the children were under the care of more than one foster parent during the year.

Orthopædic Treatment. The following figures refer to non-tuberculous infants below school age dealt with under the Maternity and Child Welfare scheme during 1933 :—

Patients receiving residential treatment at the Bath and Wessex Children's Orthopædic Hospital ...	7
Attendances at After-Care Clinic ...	305
Attendances at Massage Clinic ...	517

A more complete account of our very comprehensive scheme for dealing with orthopædic defects in children may be found in my Report to the Education Authority for 1933, pages 14 to 17.

Nursing and Maternity Home.	Nursing Homes only.	Maternity Homes only.	Combined Nursing & Maternity.
On Register at beginning of 1933 ...	8	5	7
Applications during 1933 ...	1	0	1*
Number registered do. ...	1	0	1*
Cancelled through closure of Home...	0	1	0
Removed to another category ...	0	1*	0
Appeals and applications for exemption	0	0	0
Registered at end of 1933 ...	9	3	8

* Application for non-maternity as well as maternity cases sanctioned.

At the end of the year, therefore, there were 20 homes registered under the Nursing Homes Registration Act, 1927, 3 taking maternity cases only, 9 non-maternity cases, and 8 both kinds. No applications were refused. All the Homes are visited from time to time by one of the Medical Officers and all are conducted satisfactorily. Occasionally a certain amount of pressure is necessary to ensure compliance with the conditions under which the certificates of registration were granted.

“ BIRTH CONTROL ” CLINIC.

This Clinic was established in 1931 and is conducted in accordance with the Ministry of Health's Memorandum No. 153 under powers conferred by the Maternity and Child Welfare Act of 1918. The arrangements described in some detail in previous reports (1932, page 29 ; 1931, page 43) were continued without alteration.

Eighteen cases were sent for consultation during 1933 (there were 15 in 1932 and 12 in the last nine months of 1931) and in each instance it was decided that instruction of the kind suggested should be given. Seven were suffering or had suffered from tuberculosis; three had had difficult or dangerous confinements in the past; in two there were unsatisfactory local conditions; one had heart disease; while five suffered from severe debility or anæmia, usually following too frequent pregnancy.

ADOPTION OF CHILDREN ACT, 1926.

At the request of the Magistrates the Maternity and Child Welfare Committee has agreed to act as “ guardian ad litem ” under Section 8 of the Act in connection with cases coming before the Court of Summary Jurisdiction in Bath. Investigations are made by me personally on behalf of the Committee and a written report is sent for the information of the Magistrates. See also Reports for 1927 (pages 35 and 36) and for subsequent years.

During 1933 I investigated 12 cases (making 90 since the present procedure was commenced in 1927). In 10 of these permanent adoption had, in effect, already occurred and the application was designed simply to give it legal sanction. In 7 cases the applications were made by husband and wife jointly, 3 applicants were widows, one was separated from her husband, and one was the guardian of a youth of 17. Two of

the children were legitimate and 10 illegitimate. The ages were: under 2, four; 2 - 5, two; 5 - 10, three; and one each of 14, 17, and 18.

Eleven unconditional orders were granted, including one where circumstances had improved since a previous application in 1932 had been refused. In addition, an order was granted to the wife only in the case deferred from 1932, which was a joint application from husband and wife. In one instance only was the applicant related to the infant—a grandmother—and this was the only case refused.

The Act continues to meet the need for which it was designed, and as far as my experience of Bath cases is concerned, in a manner which is quite satisfactory.

It may be mentioned that valuable work in connection with the adoption of children is being done by the West of England Branch of the National Adoption Society, whose office is at 8, Bennett Street, Bath. Those who desire help from the point of view either of a prospective adopter, or of a child to be adopted, should apply to the Secretary at that address.

Section C.

SANITARY CIRCUMSTANCES OF THE AREA.

Water. No new works of importance were undertaken during 1933, but ample evidence was forthcoming of the value of various measures for the improvement of our water supply which I have described in recent reports.

In spite of prolonged drought a practically unrestricted supply was available throughout the year. To avoid the difficulties of a continuing or recurring deficiency in rainfall, the Committee are making active enquiries as to possible additional sources of supply.

Analyses of all the chief sources of Bath water are made by the Waterworks Committee. Expressed in parts per 100,000 the total dissolved solids are usually from 30 to 40; the earthy carbonates between 20 and 30; and the hardness about 30. Nitrates and poisonous metals are absent. Bacteriologically, the water is practically sterile—over a hundred consecutive analyses showed complete freedom from *B.Coli* in

100 c.c., no *B. enteritidis sporogenes*, and usually no colonies on agar at 37°C. Typical chemical results have been given in detail on previous occasions, *e.g.*, 1932, page 32.

The four collecting and seven service reservoirs have an aggregate capacity of 63,151,000 gallons. This includes 51,971,137 gallons at Monkswood and 9,334,564 at Batheaston.

Swimming Baths. There are three large swimming baths owned by the Council. One is supplied by spring water which is chlorinated before entering the bath, and two are hot mineral water baths. Bacteriological analyses of the latter have not shown evidence of gross contamination, doubtless owing to the arrangements made for the more or less constant renewal of the water. Having regard to modern standards in these matters, however, it is highly desirable that some efficient system of purification should be adopted and it is understood that the Baths Committee are taking active steps to bring this about. I hope to be able to refer to the position again in more detail at a later date.

Drainage and Sewerage. The important new storm water culverts described in my last report have been completed. No other large schemes were undertaken during 1933.

Rivers and Streams. Constant watch is kept both by the Sanitary Inspectors and the City Engineer's Department to prevent avoidable pollution of the Avon and other smaller streams. No serious nuisances likely to affect health arose in the City during 1933.

Closet Accommodation. An adequate system of water closets is in use in nearly the whole area. Only in outlying districts are there a few cesspools and earth closets. During 1933 two conversions took place, and the Inspectors were instrumental in having 29 new water closets constructed and 21 old ones replaced by more modern types.

Public Cleansing. The actual house to house collection of dry refuse is necessarily bound up with the question of its ultimate disposal. The existing Destructor will need to be replaced by a newer and more up to date plant in the near future and the Surveying

Committee have been making extensive enquiries in order to satisfy themselves as to the best scheme to adopt. Until this is decided the present system of collection, unsatisfactory as it is in certain respects, must remain. It is hoped to be able to report definite progress next year.

Sanitary Inspection of the Area. Full details may be found in the Chief Inspector's Report on pages 44 to 49 and no further reference is needed here.

Smoke Abatement. See page 56.

Schools. Matters of interest in connection with Schools are referred to in my Report to the Education Authority. The fact that the Medical Officer of Health is also School Medical Officer enables a very close co-operation between the Health and School Medical Departments to be secured.

Section D.

HOUSING.

In response to the request contained in the Ministry of Health's Circular 1331 issued in April a great deal of time and thought was given to the preparation of a comprehensive Slum Clearance scheme. Although most of the areas ultimately included had already been brought to the notice of the Housing Committee, the whole position was considered afresh.

The Circular added nothing to the powers already possessed by local authorities and offered no new financial assistance. Unfortunately, too, it threw no fresh light on that very important and extremely difficult question "What is a slum?" Bad housing, it may be pointed out once more, is only one of several factors which lead to slum conditions. Others, scarcely less important, are overcrowding, which is largely an economic problem; and the personal habits of tenants. Certain standards have been laid down by the Ministry and where a house obviously fails to reach these in several respects the remedy is clear. In actual practice, however, there are degrees of approximation to what is desirable and in many cases a final decision can only be arrived at with difficulty. Whether

or not the list of houses and areas included in the Council's scheme be ultimately accepted without modification, it at least represents the considered opinion reached by the Housing Committee and the Health Department after a prolonged and detailed investigation of existing conditions and a careful study of the standards which have been laid down for guidance.

There is one point to which attention may properly be drawn here. From time to time in the past the Council has purchased at a comparatively low price a certain number of houses which it might have been possible to get demolished under the Housing Acts for site value only. This has been done, in part at least, to minimise the undue hardship which it was felt might otherwise have been inflicted on owners. It is of course easy to produce arguments to show that no more than site value ought to be given for unfit houses, but the Council has always been unwilling to use its full legal powers without reference to the special circumstances which might apply in particular cases. In accordance with this principle the scheme submitted to the Ministry as a result of Circular 1331 provided that a sum of money, by no means inconsiderable in amount, should be included for the purpose suggested. It is understood, however, that the Ministry of Health are unable to sanction the additional expenditure involved and the Council has, therefore, no option but to proceed strictly according to the Housing Act of 1930.

The five year Slum Clearance scheme approved by the Council is given in full on pages 71-77 and 263-266 of Council Minutes for 1934. It includes the following:—

- (a) 12 Clearance Areas with 261 houses. 896 persons will be displaced and it is proposed to provide 268 new houses.
- (b) Improvement Areas. None.
- (c) 100 individual houses to be dealt with under Section 19 with an estimated displacement of 400 people.

HOUSING STATISTICS.

Number of new houses erected during the year 1933:—

By the Local Authority	...	...	...	88*
By other bodies and persons	...	...	...	153
				<hr/>
				241
				<hr/>

* Kingsmead Flats.

1. *Inspection of Dwelling-houses during the year :—*

(1)	(a)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	2367
	(b)	Number of inspections made for the purpose	...					6601
(2)	(a)	Number of dwelling - houses (included under sub-head (1) above), which were inspected and recorded under the Housing Consolidated Regulations, 1925	...	...	...	...		93
	(b)	Number of inspections made for the purpose	...					376
(3)		Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	...		38
(4)		Number of dwelling - houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	...	...	...	...	...	467

2. *Remedy of Defects during the year without Service of formal Notices :—*

		Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers		75
--	--	---	-----	-----	-----	-----	--	----

3. *Action under Statutory Powers during the year :—*

A. Proceedings under sections 17, 18 and 23 of the Housing Act, 1930 :

(1)		Number of dwelling-houses in respect of which notices were served requiring repairs	...	...				10
(2)		Number of dwelling-houses which were rendered fit after service of formal notices :—						
	(a)	By owners	...	...	...	...		8
	(b)	By local authority in default of owners	...					—

B. Proceedings under Public Health Acts :

- | | |
|---|-----|
| (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied | 486 |
| (2) Number of dwelling-houses in which defects were remedied after service of formal notices :— | |
| (a) By owners | 468 |
| (b) By local authority in default of owners ... | — |

C. Proceedings under sections 19 and 21 of the Housing Act, 1930 :

- | | |
|---|----|
| (1) Number of dwelling-houses in respect of which Demolition Orders were made... .. | 1 |
| (2) Number of dwelling-houses demolished in pursuance of Demolition Orders | 23 |

NOTE,—14 houses were reported under Section 19. All except 1 are either still under consideration or have been included in Clearance Areas.

D. Proceedings under section 20 of the Housing Act, 1930 :

- | | |
|---|---|
| (1) Number of separate tenements or underground rooms in respect of which Closing Orders were made | — |
| (2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit... .. | — |

Section E.

Inspection and Supervision of Food. See pages 49 to 56 and 59.

Section F.

INFECTIOUS DISEASES.

An analysis of notifications received and cases removed to hospital during 1933 in relation to the age and sex of the patients is given on page 60. On page 7, notifications, attack-rates, deaths and death-rates, of the principal diseases are summarised and the figures compared with similar ones for previous years. Further details in regard to particular diseases are given below.

Diphtheria. The number of cases notified was 71. This is about the average for recent years. Generally speaking, it was of a mild character, though in the spring we were threatened with an outbreak of a very severe type in one district. Two of the children affected died, one within a few hours of reaching the Isolation Hospital and the other with equally acute symptoms outside. 53 of the 71 patients were under 15 years of age and there were four deaths.

Antitoxin is always available at the Health Office for use by private practitioners and is supplied free of charge in suitable cases. 75,000 units in all were distributed in 1933. Apart from this, it is of course freely used at the Isolation Hospital, where the dose given usually varies from 8,000 in a mild case to 20,000 or more in a severe one.

We have not yet undertaken Schick testing or immunisation for the general public. Both have been used for the staff at the Isolation Hospital (see page 37) and also, I understand, for many of the patients at the Orthopædic Hospital.

Scarlet Fever. The total notifications numbered 207, as compared with 118, 112, and 103 in the three preceding years. The cases were generally, though not always, of a mild type and no deaths were recorded.

Except for a few members of the staff at the Isolation Hospital the Dick test was not used, nor was immunisation practised. Serum is given to the more severe cases at the Hospital.

Enteric or Typhoid Fever. No cases were notified.

Small-pox. There were no notifications.

Vaccination. About six out of every seven infants born in 1933 remain unvaccinated.

Influenza. A good many cases occurred in the spring of 1933. During the year 65 deaths were attributed to the disease—nearly two-thirds of them in people over 65 years of age.

Pneumonia. The number of cases notified was 56. The figure is probably only an approximate indication of the actual prevalence.

Ophthalmia Neonatorum. Fourteen cases were notified and all but one recovered without injury to sight. One infant who was under the care of a private practitioner or in hospital from birth unfortunately lost one eye.

Puerperal Fever and Puerperal Pyrexia. Fourteen cases were notified under the 1926 Regulations—eleven as pyrexia and three as fever. There were no deaths. Last year the number was 21 with three deaths.

There were seven cases of cerebro-spinal fever with four deaths, one case of dysentery, and one of polio-encephalitis.

No cases of malaria, psittacosis, or anthrax were known to have occurred.

Disinfection of rooms occupied by patients suffering from scarlet fever and diphtheria is carried out as soon as the patient is removed to Hospital, or is stated by the doctor to have recovered. Routine disinfection is also undertaken in connection with tuberculosis. We are also prepared to disinfect after cancer or severe sepsis on the recommendation of the doctor, with or without a small charge according to circumstances.

Facilities for the cleansing of persons and disinfection of clothing infested with vermin are provided at the Disinfecting Station at the Destructor Works, but they are seldom required.

A complete list of diseases notifiable in Bath is given on page 36 of my Report for 1930.

For Hospital procedure and administration see page 35.

For Tuberculosis, Venereal Diseases, and Cancer, see pages 38 to 43.

For Rat infestation see page 58.

CASES OF INFECTIOUS DISEASES NOTIFIED, ADMITTANCES TO HOSPITAL, AND DEATHS DURING THE YEAR 1933.

Disease.				Total Cases Notified.	Cases admitted to Hospital.	Total Deaths.
Small-pox	...	...	...	—	—	—
Scarlet Fever	...	...	...	207	188	—
Diphtheria	...	...	...	71	78*	4
Enteric Fever (including Paratyphoid)				—	—	—
Puerperal Fever	...	...	...	3	3	—
Puerperal Pyrexia	...	...	...	11	5	—
Pneumonia	...	...	...	56	21	22
Erysipelas	...	...	...	10	5	2
Ophthalmia Neonatorum			...	14	5	—
Cerebro-spinal Fever	...	...	...	7	7	4
Dysentery	...	...	...	1	1	—
Polio-Encephalitis	..	...	...	1	1	2

* Including 12 "carriers."

An analysis of cases under age groups will be found on page 60 and for deaths on pages 62 and 63.

LABORATORY WORK.

The City undertakes the following pathological examinations free of charge for private practitioners: (a) throat and nose swabs; (b) blood and other material in suspected typhoid; (c) sputum for tubercle bacillus; (d) blood specimens and slides in suspected venereal disease; (e) for certain other conditions, including puerperal pyrexia.

A considerable number of investigations are made in connection with the Isolation Hospital and the School Clinics.

Pathological Examinations. The following table indicates the nature and extent of the examinations made during 1933 and also the places where they were undertaken :—

Examinations		Positive.	Negative.	Total.
<i>b</i> Diphtheria Bacillus	....	110	.... 1,255	.... 1,365
<i>b</i> do. Virulence	....	—	.... —	.... —
<i>ab</i> Gonococcus	....	31	.... 35	.... 66
<i>a</i> Wassermann Reaction	....		....	... 105
<i>b</i> Typhoid Group	....	—	.... +	.... 4
<i>c</i> Tubercle Bacillus....	....		....	.... 181
<i>d</i> Ringworm Fungus	....		....	.... *
<i>b</i> Blood count and Hæmoglobin estimation	....		....	... 1
<i>b</i> Faeces for tubercle bacillus	....		....	.... 1
<i>b</i> Analysis of Urine	....		....	.... 9

a Bristol University Pathological Department.

b Bath Central Laboratory.

c Tuberculosis Dispensary.

d School Clinic.

* Exact numbers not available.

ISOLATION HOSPITAL.

For various reasons it was found impossible to begin the second stage of the reconstruction scheme during 1933. Tenders were accepted, however, in November, and work actually commenced on January 30th, 1934. In the meantime two of the three old wooden blocks were demolished, the third (No. 1) being retained for the time being to supplement the accommodation available in the two new wards. The Hospital should be completed and opened during the autumn of 1934. It will include two blocks with 22 beds each, one with 16, and one cubicle block of 10 beds. (See also Reports for 1930, page 38, and 1931, page 28).

Hospital Statistics. January 1st to December 31st, 1933.

Cases admitted as:				Number.		Deaths.	
				City.	Rural.	City.	Rural.
Diphtheria	...	...	...	66	5	2	—
Scarlet Fever	...	...	...	188	18	—	—
Diphtheria Carriers	...	...	...	12	—	—	—
Erysipelas	...	...	...	3	1	1	—
Measles	...	...	...	8	—	2	—
Mumps	...	...	...	4	—	—	—
Chicken-pox	...	...	...	2	—	—	—
Broncho-Pneumonia	...	...	...	1	—	—	—
Tonsillitis	...	...	...	1	—	—	—
				—	—	—	—
Totals	...	...	...	285	24	5	—
				—	—	—	—

Seven patients were transferred to another hospital for tonsillectomy and in two of these a mastoid operation was also performed.

A surgeon was called in for consultation in connection with four cases.

One patient sent in as scarlet fever was found to be suffering from measles. The diagnosis was not confirmed in one case of diphtheria and in one other case of scarlet fever.

Two patients were considered to have concurrent attacks of scarlet fever and diphtheria when admitted. Three other diphtheria patients also had scarlet fever while in hospital.

Two scarlet fever cases contracted measles while in hospital.

One diphtheria patient was readmitted 23 days after discharge, as Klebs-Loeffler Bacilli were still present in the throat, but was sent out again in 16 days.

Of the diphtheria cases, seven were nasal infections.

In six cases of scarlet fever a second rash was noted, but in all of them the original diagnosis was considered to have been correct.

The "return" case rate was between 2 and 3 per cent.

Patients admitted from other institutions were as follows :—

From the Orthopædic Hospital, 11 (including 3 staff).

„ Frome Road Infirmary, 2 (both measles).

„ Royal United Hospital, 3 (2 diphtheria and 1 measles).

„ Royal Mineral Water Hospital, 1 (erysipelas).

The Medical Officer of Health is the Medical Superintendent and is responsible for the treatment of patients. Cases of infectious disease from the Bathavon Rural District and occasionally from other areas are admitted by arrangement.

During the autumn voluntary immunisation against diphtheria was offered to and willingly accepted by the whole of the nursing staff. The procedure carried out and the results obtained were as follows :—

Preliminary Schick test, 9 positive and one negative (*i.e.*, already immune).

Eight of the positives received immunising injections of T.A.F. (the ninth was leaving shortly and was not done).

Two months later further Schick testing showed that seven of the eight were now immune. The eighth was away ill.

Three of the staff who wished to be Dick tested were found to have an immunity to scarlet fever.

CANCER.

During 1933 there were 26 names on the register. Of these, 6 had been brought forward from 1932 and one, removed during 1932, had to be restored. Twelve patients are known to have died during the year, leaving 14 to be carried forward to 1934. Assistance was actually given to 25 patients. In 20 cases the cost of home nursing undertaken by the staff of the District-Nursing Association, was paid for by the Council at the agreed rate of 9d. a visit. The total visits amounted to 1,811, but the number varied from 1 to 204 in individual instances. The patients were not in a position to pay nursing fees and no insurance money was available for the purpose. Sixteen patients were supplied with dressings and disinfectants through the Health Office. Arrangements were made for two patients to attend the Bristol Radium Centre and in-patient fees paid for one of them. Railway fares were paid to Bristol in one instance and to London in two others. Most of the figures are higher than those for

1932. As there was no appreciable increase in the total deaths from cancer, this means that rather more use was made of the Council's scheme. An extended reference to the scheme was made in my report for 1930. It need only be said here that the Medical Officer of Health is able to arrange in suitable cases for extra nursing assistance at home, extra domestic help, admission if necessary to special hospitals, the provision of dressings and disinfectants, and in general terms to ensure as far as possible that no sufferer fails to obtain treatment likely to be of value for the cure of the disease or the mitigation of its effects.

BLIND PERSONS.

The Blind Persons Act of 1920 is administered by the City Council through the Health Committee, but the actual arrangements have hitherto been carried out by the Bath Society for the Blind, upon whose Committee members of the Council are co-opted. It has been arranged that as from 1st April, 1934, relief shall be administered direct by the City Council, who will also assume control of the workshop. Still further developments of the Council's scheme are likely to take place a little later on.

The Society's report for 1933-34 states that the number of blind persons known to live in the City is 168. About 76 receive grants, which vary from 2/- to 22/6 a week. The total cost of the Society's activities, including all allowances, for the year ended March 31st, 1934, was £3,082. Towards this the Council contributed £2,636.

Of the 168 cases, 6 are under 21 years of age ; 21 are between 21 and 50 ; 72 between 50 and 70 ; and 69 are over 70. Twenty-one were blind before their first birthday ; 52 became blind between 1 and 50 ; and 95 when over 50. Nineteen of those over 16 are employed and 36 (all ages) are physically or mentally defective.

TUBERCULOSIS.

Important changes took place in 1933 in this section of our work. An integral part of every scheme drawn up as a result of the report of the Departmental Committee appointed by the Government in 1912 was the provision of Dispensary facilities. In Bath the most suitable arrangement at first seemed to be for the Council to ' contract out ' with the Somerset County Council, who agreed that Bath patients

should be seen at a Dispensary which they established in 1913 at 26, Charles Street. The City Medical Officer of Health was not responsible for the work carried on at the Dispensary and, conversely, the County Medical Officer had no obligation in regard to other measures designed to control the disease within the City. The arrangement worked well for many years, but the inherent defects of divided responsibility made a change desirable in due course. Since April 1st, 1933, the Dispensary has been under the administration of our own Health Department instead of that of the County and Dr. A. Michael Critchley, one of the Council's whole-time Medical Officers, has been in clinical charge. The advantages of the change soon became apparent and work developed vigorously in ways which were scarcely possible before.

Special efforts are being made to ensure earlier diagnosis in order to obtain the early treatment which is of such vital importance in tuberculosis. In this connection we are paying particular attention to the examination of "contacts"—that is of other members of the patient's family; and to children seen in the School Medical Department. For the children we have made considerable use of the simple skin reaction known as the Mantoux test and have reason to think that it has been of definite value. It is hoped to give some account of our results at a later date.

Notifications. It will be noticed elsewhere that the number of notifications for 1933 is higher than that for previous recent years. It is possible that in common with some other areas we have actually experienced an increased prevalence of the disease. Having regard to the relation between tuberculosis and malnutrition on the one hand and to the large amount of prolonged unemployment on the other, this might well be expected. At the same time, I feel sure that much of the apparent increase is due to a more complete ascertainment, and that is, of course, a step in the right direction. This explanation is confirmed by the fact that the number of deaths from pulmonary tuberculosis is exactly the same as in 1932 and is below the average for the past ten years.

Of the 133 cases notified (97 pulmonary and 36 non-pulmonary),—13 pulmonary and 8 non-pulmonary had died by 31st March, 1934, 15 within three months of notification. Thirty-four of them were

included among admissions to sanatoria during the year, 30 to Winsley and 4 elsewhere.

The total number of cases on the Register of Notifications on 31st December, 1933, was 416.

An analysis of notifications according to age and sex is given on page 60, and a similar analysis of deaths on page 61.

Deaths. The number of deaths attributed to tuberculosis was 51. 38 of these were due to pulmonary and 13 to non-pulmonary disease. Last year the figures were 38 and 11. See also table on page 6.

8 of the 51 patients who died had not been notified—4 pulmonary and 4 non-pulmonary. The ratio of non-notified to total deaths was 16%. Generally speaking, notification is carried out satisfactorily in the area and there is no occasion for action on the ground of wilful neglect or refusal to notify.

The Dispensary is at 26, Charles Street. Attendances for 1933 were as follows:—

		1933.	1932.
New cases	... ..	460	319
Return visits	... ..	2222	1217

Milk and occasionally other food was distributed at the Council's expense to 62 individual patients in 1933. The cost for the year ended 31st March, 1934, was £42.

During the year the City Tuberculosis Health Visitor paid 2,081 effective visits, as well as being in regular attendance with the Medical Officer at the Clinic.

Sanatorium Treatment. The Council has purchased and maintains 14 beds at Winsley Sanatorium. This institution, which is six miles from the City, was founded in 1904 and now contains 119 beds. It is intended for cases of early tuberculosis in adults and is reserved almost exclusively for patients sent by the Councils of Wilts, Bristol and Bath.

In addition to those at Winsley, a number of beds are available for tuberculous disease in children and for non-pulmonary tuberculosis in adults in institutions approved by the Ministry of Health for the

purpose. Children suffering from crippling defects due to tuberculosis are sent to the Bath and Wessex Children's Orthopædic Hospital at Combe Park. During 1933, 45 patients were discharged from Winsley on completion of treatment, 2 from Combe Park, 1 from the Royal Sea-Bathing Hospital at Margate, 2 from the National Children's Home Sanatorium at Harpenden, and 1 from the Church Army Sanatorium at Heath End.

The Winsley patients were classified by the Medical Officer of that institution on discharge as follows :—

Fit for work ...	...	...	...	9
Improved ...	...	...	...	31
Not improved ...	...	...	...	5

No residential accommodation for cases of advanced tuberculosis is provided under the City scheme, but two special wards are available at the Frome Road Institution for such patients. On the average about 13 beds were in occupation during 1933.

General Observations. The activities of the Tuberculosis Voluntary Care Committee were continued during 1933. Monthly meetings are held and a great deal of unobtrusive but valuable work is done by individual members of the Committee, who devote much time and consideration to the welfare of poorer tuberculous patients.

Artificial Light Treatment under medical supervision has been available since 1926 at the City Bathing Establishment. The number of cases during 1933 was 7.

Artificial pneumothorax refills are done by arrangement at Winsley Sanatorium.

The Council owns two hut shelters and these are of great value in selected cases. Unfortunately in some instances where this extra sleeping and living accommodation is most needed, the huts cannot be used because there is not sufficient garden space for the purpose.

No action was taken during the year under the Public Health (Prevention of Tuberculosis) Regulations, 1925. No formal use was made of the power given under section 158 of the Bath Corporation Act, 1925, the provisions of which are similar to section 62 of the Public Health Act, 1925, but the fact that we had the power was of value in certain cases.

VENEREAL DISEASES.

Under the Council's scheme provision is made for free treatment at the Royal United Hospital by a senior member of the Hospital staff. Three clinics are held each week from 5 to 6.30 p.m., on Tuesdays for women, and on Fridays and Saturdays for men. Treatment can also be obtained any other time, day or night, if necessary. The cases dealt with are mainly those from Bath and from the neighbouring parts of Somerset and Wilts. The Hospital pays all expenses and makes a pro rata charge on an agreed scale to the authorities concerned, the City's share during the year ended 31st March, 1934, being 69 per cent of the total.

The total number of new patients, as well as the cases of syphilis, were less than in 1932, but there were more cases of gonorrhœa. No in-patient treatment was found to be necessary.

		1933.	1932.	Average 1926-30.
Number of new patients	... ..	62‡	78	80
*Total number of out-patient attendances...		1491	1396	1019
Average cost of each attendance	... ..	5/11†	5/3	5/9
Total number of " in-patient " days	... ..	0	67	58
Number of doses of Salvarsan substitutes		421	519	201

NOTES :—**i.e.*, seen by Medical Officer—not "intermediate treatment." The number of irrigations was 3,134 (2,412 in 1932).

†Year ended 31st March, 1934.

‡Syphilis, 16; Gonorrhœa, 37; Soft Chancre, 1; Not Venereal, 8.

All the above figures refer to Bath only.

For details as to the number of pathological examinations made, see page 35.

The chief arsenobenzene compounds used are Novarsenobillon, Sulfarsenol, and Silver Salvarsan.

A very small number of Bath patients treated at Clinics elsewhere are not included.

There is a local branch of the British Social Hygiene Council. The City Council contributes financially both to this Branch and to headquarters. It may be stated briefly that the objects of the Society are to preserve and strengthen the family as the basic social unit; to further social customs which promote a high and equal standard of sex conduct in men and women; to promote the removal of conditions

conducting to promiscuity ; and the prevention and treatment of venereal diseases by appropriate educative, medical and social measures.

The programme for the autumn and winter, 1933-34, was a full one and included lectures, addresses, discussions, and film displays to a variety of different audiences--amongst others, the local branch of the National Union of Teachers, the Rotary Club, the Y.M.C.A., the Domestic Science students, two Co-operative Guilds, an Adult School, and a Parents' Association.



Annual Report

OF THE

Chief Sanitary Inspector

For the Year 1933

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

LADIES AND GENTLEMEN,

I have pleasure in submitting my Annual Report of the work connected with the abatement of nuisances, food supply, etc., for the year 1933. The report is presented in tabular form with short reports on the administration of various Acts and Orders, and summarises as far as possible, the work of the Sanitary Inspectors.

I have again to acknowledge the loyal support of the Staff and the willingness they have shown in carrying out the ever increasing activities of a modern Sanitary Department.

I am, Ladies and Gentlemen,

Yours faithfully,

W. A. CRAVEN,

Chief Sanitary Inspector.

SUMMARY OF SANITARY WORK, ETC., 1933

No. of inspections, re-inspections, visits of inquiry, etc.	..	12976
„ „ of Slaughter-houses .. ..	..	2868
„ „ „ Butchers' Shops, Food Stores, etc.	..	569
„ „ „ Offensive Trade Premises ..	..	123
„ „ „ Dairies, Cowsheds and Milkshops	..	547
„ „ „ Common Lodging-houses ..	..	178
„ „ „ Canal Boats .. ..	..	15
„ „ „ Factories, Workshops, etc. ..	..	398
„ „ „ Out-workers' Premises ..	..	3
„ „ „ Houses, after infectious disease	..	467
„ „ „ „ infested with Vermin ..	..	31

No. of inspections of tents, vans, sheds, etc.	..	..	25
„ „ on receipt of Application for a Council House			157
„ „ of Places of Public Entertainment	..		40
„ „ „ Piggeries, etc.	..	..	127
„ „ under Rats and Mice (Destruction) Act, 1919			838
„ „ „ Shops' Act	..	..	27
„ „ „ Increase of Rent, etc., Acts..	..		2
„ Smoke observations made..	..	..	41
„ „ notices served	..	..	2
„ „ nuisances abated	..	..	4
„ Observations made re Pollution of Streams	..	..	22
„ Preliminary notices served	..	..	434
„ Statutory notices	..	..	6
„ Notices requiring cleansing of premises	..	..	65
„ „ „ ash-bins to be provided	..	..	93
„ „ „ manure pits to be provided	..		8
„ „ „ removal of manure, etc.	..	..	15
„ „ „ lime-washing of Slaughter-houses	..		38
„ „ „ „ „ Dairies, etc.	..		118
„ „ „ „ „ Common Lodging-houses	..		8
„ „ „ Closure of Cellar-dwellings	..	..	4
„ „ under the Milk and Dairies Order	..	..	1
„ smoke or other tests applied to drains	..	..	854
„ new drains laid	..	..	123
No. of drains partially reconstructed	..	..	226
„ new W.C.'s erected	..	..	29
„ additional W.C.'s provided	..	..	21
„ defective drains, soil pipes, etc , remedied	..	..	213
„ nuisances from defective W.C.'s and urinals abated	..		198
„ „ „ „ rain-water pipes, etc., do.	..		161
„ „ „ „ roofs, walls, etc., do.	..		229
„ „ „ „ dish-troughs, lavatories, etc. abated	..		209
„ „ „ „ waste pipes, etc., abated	..		122
„ „ „ „ paving and floors, do.	..		123
„ „ „ „ yards and outbuildings, do.	..		89
„ „ „ „ cesspools do.	..		5
„ „ „ „ defective ventilation of premises do.	..		31

No. of nuisances from overcrowded premises	abated	18
„ „ „ animals	do. ..	18
„ „ „ offensive accumulations	do. ..	41
„ „ in Common Lodging-houses	do. ..	7
„ „ in Tents, Vans, Sheds	do. ..	3
„ „ in Slaughter-houses	do. ..	27
„ „ in Dairies, etc.	do. ..	11
„ „ in Factories, Workshops, etc.	do. ..	54
„ Water storage systems abolished .. ..	..	9
„ Premises provided with proper water supply ..	..	11
„ Samples of water analysed .. ..	..	6
„ Premises, etc., disinfected after Infectious disease ..	..	444
„ „ cleansed, lime-washed, etc. .. ..	..	97
„ „ supplied with disinfectants .. ..	..	317
„ „ „ „ „ in Flood area ..	..	139
„ complaints referred to other Departments .. ..	..	114
Miscellaneous works not classified above .. ..	..	136

ABATEMENT OF NUISANCES, ETC.

Notices Served. 434 preliminary or “informal” notices were served.

This form of notice is usually sufficient to ensure the specified works being carried out, and it is only occasionally necessary to serve formal or statutory notices. Last year authority was given for the service of formal notices with respect to 111 premises but actually only six were served. It was not necessary to take legal proceedings in any case.

Drainage Work. An increased amount of drainage work was carried out during the year. 123 new systems were laid down and partial reconstruction or amendments were made in 226 instances. The hydraulic or other tests were applied to 854 drainage systems. 29 new W.C.’s were erected and 21 additional W.C.’s were provided. There were two conversions from pail closets to water closets with drainage connected to the City sewerage system.

House Inspections. 2,367 inspections of dwelling-houses were made.

Most of the defects discovered in the course of routine inspections were remedied under the Public Health Acts and

notices in respect of 486 dwelling houses were served. Where the conditions rendered the premises unfit for human habitation they were reported to the Housing Committee and appropriate action taken under the Housing Acts.

Tents, Vans and Sheds. There are no tents, vans or sheds which are occupied permanently as dwellings. Inspections were made of several tents and caravans used temporarily during the Summer and two, which contravened the bye-laws, were removed after notice.

Places of Entertainment. 40 inspections of Public entertainment places were made. These were found to be clean and in a satisfactory sanitary condition.

Rent Restrictions Acts. Two applications for certificates under these Acts were received, but both were withdrawn after satisfactory arrangements had been made between landlord and tenant.

Vermin Infested Houses. 31 houses were found to be infested with vermin—bugs or fleas. In all cases every assistance was given, insecticides were used and as far as practicable with occupied houses, disinfestation was carried out. Notices were served where the conditions appeared to be due to the dirty habits of the occupiers. Several complaints were received of plagues of flies, crickets, earwigs, etc., and in each case suitable methods of extermination were recommended.

Overcrowding. 18 notices for the abatement of nuisance caused by overcrowding were served and in each case the notice was complied with, the occupiers being able to obtain additional accommodation. Many cases of overcrowding were discovered upon inspection of houses occupied by applicants for Council houses. Where it was impossible for these persons to obtain suitable rooms or houses at a reasonable rent, they were recommended for a Council house.

Common Lodging Houses. There are four registered Common Lodging-houses, one more than in 1932, the Salvation Army Hostel for men being registered in February. This house, No. 10, North Parade Buildings, was opened on March 11th,

1933 and provides accommodation for 74 men. Extensive alterations were carried out, and bathrooms, footbaths and ample lavatory accommodation were provided on the basement floor. There are suitable lockers for the lodgers' use and a drying room for wet clothing. One dormitory on the ground floor is set apart for old age pensioners and a large room on the first floor is fitted with cubicles which have proved very popular. It is a superior establishment and a great improvement on the old lodging-houses. A high standard of cleanliness and efficiency is maintained and the accommodation is much appreciated by those who use the house. It has been two-thirds full since it was opened. There is a dining room and service bar on the ground floor and a kitchen with modern fitments in the basement. The food provided is of good quality, prepared under hygienic conditions and supplied at low charges. The three old lodging-houses are in Avon Street; one of these is in a most unsatisfactory condition, but as the house has been acquired in connection with one of the City improvement schemes and the keeper is under notice to quit, I have not taken any action in the matter. With the above exception the houses have been well conducted and the bye-laws observed.

The four houses provide accommodation for 144 persons.

No. of Common Lodging Houses on the register	...	4
„ Inspections....	... ..	178
„ Notices to cleanse and limewash etc.	... ..	8
„ Defects found and remedied	... ..	7

CANAL BOATS ACTS 1877 AND 1884.

I have to report a further decline in the Canal boat traffic which, in this district, has been superseded almost entirely by more rapid means of transit.

A few boats ply between the City and Bristol which are used for merchandise only and not as dwellings. There are two or three boats in use on the Kennet and Avon Canal. These pass through the city at long and irregular intervals and are inspected as opportunity offers. Fifteen inspections were made during the year.

The number of boats on the register remains at 55, but I am of opinion that less than half this number are available for use as canal boats. Probably some have been sold or transferred to other districts, these I cannot trace, but I think the majority have been broken up.

There are not more than six registered boats in use on the local waterways and their general condition was found to be satisfactory and in compliance with the Regulations.

No infectious disease occurred on any canal boat nor was it necessary to detain any boat for cleansing or disinfection.

No. of boats on the Register	...	...	...	55
„ „ which cannot be traced	...	...	...	+3
„ „ stated to have been broken up	...	...	...	6
„ „ available for, or in, use,	...	...	...	6
„ of inspections	...	...	...	15

SALE OF FOOD AND DRUGS ACTS, 1875—1928.

The number of samples submitted to the Public Analyst under the above Acts during 1933 was 280, being an increase of seven on the previous year and the greatest on record. The number of samples analysed during each of the past five years was:—

1929—253; 1930—260; 1931—268; 1932—273; 1933—280, giving an average of 267 per annum.

The proportion of samples per 1,000 of the estimated population for 1933 (68,900) was 4.07 which is well above the average for England and Wales, according to the latest available figures, and 1.07 per 1,000 more than the proportion suggested by the Ministry of Health, *i.e.*, 3 per 1,000.

The articles analysed consisted of 28 various foods and drugs as follows:—Bread 1; Butter 23; Cheese 1; Cocoa 1; Coffee 1; Coffee extract 3; Condensed Milk 8; Confectionery 5; Corn flour 1; Cream (raw) 9; Cream (scalded) 9; Cream (tinned) 7; Custard powder 1; Fish paste 1; Glycerine 1; Golden syrup 1; Honey 2; Jam 5; Lime Juice cordial 1; Margarine 1; Milk 185; Olive oil 1; Peas (tinned) 1; Pickles 2; Sausage 4; Tinned fruit 2; Tomato Sauce 1; Vinegar 2; Total 280. There were no samples submitted for analysis by private persons.

Milk. Greater attention than ever before has been given to the examination of milk and the number of samples analysed, 185 (66 per cent. of the total) is 31 more than in the previous year and the greatest since the Acts became operative. These samples were taken

at all hours at, and between, the times of morning and afternoon milkings, at the farms, at milk-sellers' premises and in the streets on delivery.

The samples consisted of 17 "Certified"; 30 "Grade A"; 9 "Pasteurised" and 129 ordinary milks.

The chemical composition of the milks was:—

"Certified"	Fat 3.95 per cent.	Other solids 8.74 per cent.
"Grade A"	Fat 3.71 per cent.	Other solids 9.07 per cent.
"Pasteurised"	Fat 3.80 per cent.	Other solids 8.83 per cent.
Ordinary milk	Fat 3.80 per cent.	Other solids 8.79 per cent.

The average composition of all the milks (185 samples) was:— Fat 3.74 per cent. and other solids 8.85 per cent. These amounts are slightly below those of 1932 but are above the presumed standard, made under the Sale of Milk Regulations 1901, of 3% fat and 8.5% other solids. The reduction in the quality of the milk was due, in all probability, to the unusual conditions brought about by the hot and dry summer.

The averages for each quarter were:—

		Fat	Other solids
First Quarter	(71 samples)	3.95 per cent.	8.79 per cent.
Second Quarter	(37 samples)	3.42 „ „	8.94 „ „
Third Quarter	(37 samples)	3.81 „ „	8.79 „ „
Fourth Quarter	(40 samples)	3.87 „ „	8.92 „ „

Thirteen samples contained over 5% fat, the highest containing as much as 10.5 per cent.

The number of samples certified by the Analyst as adulterated was much higher than usual;—twenty-three were reported as being deficient in fat or non-fatty solids. Three samples of "Grade A" milks, taken primarily for bacteriological examination, were deficient in fat to the extent of 4%, 5%, and 22%. Twenty ordinary milks gave an average fat content of 3.06%, and other solids 8.48% (instead of 8.5 min.). Eleven samples were taken at Farms at the time of milking and of these, two were below the standard for fat (in one instance the deficiency was 19%), and three were deficient in non-fatty solids. The average of the eleven samples taken at Farms was:—Fat 3.44% and other solids 8.87%. Several samples were slightly deficient in non-fatty solids the

amounts varying from 1% to 4%. In all cases where the milk was of poor quality, the source of the supply was investigated and further samples were taken at the farms (if within the city) or upon delivery at the retailer's premises. It was found that most of the inferior samples were of morning's milk and the poor quality was attributed to the irregular intervals between the hours of milking. Where the times were re-arranged so as to render the periods less unequal, an improvement in the fat content was noted.

All the samples were certified to be free from chemical preservatives and artificial colouring matter.

Cream. Nine samples of raw cream contained an average fat content of 52.4 per cent., (highest 58.67%; lowest 46.12%). Nine samples of scalded or "Devonshire" cream gave an average of 58% fat, (highest 67.95%; lowest 34.9%).

Seven samples of tinned cream (5 imported and 2 English) contained an average of 23.6% fat, (highest 26.0%; lowest 20.5%). All the samples complied with the Public Health (Preservatives in Food) Regulations 1925—1927, and the tinned creams were certified "Free from poisonous metals and artificial thickeners."

Twenty-three samples of butter were examined and all were genuine and in accordance with the Regulations as to percentage of moisture.

Two samples of jam and one of lime juice cordial contained a small amount of allowed preservative but in all three cases it was considerably below the prescribed maximum.

The sample of Tomato sauce was coloured with a harmless aniline dye; with this exception all the samples of jams, tinned fruits, etc., were free from glucose and aniline dyes.

The sample of bread was of good quality, free from alum, starch and poisonous metals.

Artificial Cream Act, 1929. This Act regulates the sale of any article of food which resembles cream and contains nothing but the ingredients of cream. Such substance must be marked "artificial cream" and premises in which it is manufactured, sold, or exposed for sale must be registered by the Local Authority. There are no premises in the City which are registered under this Act nor has any application for registration been received.

Margarine Act, 1887. The standard for margarine is that it must not contain more than 10 per cent. of butter fat; (margarine being made either from animal or vegetable fat) and must not contain more than 16 per cent. moisture. Every package in transit or for sale by wholesale or retail must be marked with the word "Margarine" in letters of a prescribed size and in the manner laid down by the Act. Margarine factories and the premises of a wholesale dealer must be registered with the Local Authority. There are no margarine factories in the City, nor was any application received during the year for the registration of wholesale premises. Frequent inspections were made and the packages were found to be marked in accordance with the Act.

MILK AND DAIRIES ACTS, ORDERS, etc.

There are 111 persons registered under the Milk and Dairies (Amendment) Act, 1922, as "purveyors of milk." Of this number 32 are dairy farmers, 17 of whom are resident within the City and 15 are from outside districts but who retail milk in Bath. There are 79 registered retail milk sellers; 6 have milk "rounds" only and no registered dairy premises, 73 are registered with respect to 94 premises. The number of "dairies" or premises from which milk and farm produce only are sold, is decreasing rapidly and being replaced by the "general shop" from which various commodities are sold. This cannot be regarded as altogether satisfactory as the handling of milk is rendered much more difficult and the risk of contamination is increased. Five applications for registration were withdrawn as the premises were unsuitable.

The dairies and milk shops were inspected regularly and generally were found in a cleanly condition.

"Certified" Milk. In accordance with the request of the Ministry of Health that samples of "certified" milk should be examined,—seventeen samples were submitted to the Analyst for bacteriological examination. These samples are taken with special care, each one is packed in ice and despatched as soon as possible to the Laboratory. A separate report on these samples is sent by the Analyst to the Ministry. Two samples did not comply with the standards laid down by the Regulations (30,000 organisms per cc., nor

B. coli in one-tenth cc.), the bacterial count in each sample exceeded 1,000,000 and *B. coli* was present in excess. These samples were taken during the very hot weather in July (shade temperature 81°F.), and although they were packed in the usual manner the ice had melted and the milk had a temperature of 68°F. when it reached the Analyst. The other fifteen samples were very satisfactory, the average number of organisms per cc., was 2840 (highest—7800 ; lowest—80) and *B. coli* was absent from 0.1 cc. in each sample.

During the year one retailer discontinued the sale of “certified” milk. There are now only two dairies licensed for the sale of this highest grade milk.

“Grade A (Tuberculin Tested)” Milk. 28 samples of Grade A (TT) milk were examined.

Twenty complied with the Regulations as to the number of organisms per cc. and *B. coli* (organisms not to exceed 200,000 per cc. and no *B. coli* in 1/100 cc). One sample had a low count of organisms but *B. coli* was present in 1/100 cc. Seven had an excessive number of organisms and *B. coli*. These were taken during the very hot weather and the failure of the cooling apparatus at the farm probably was responsible for the high count in four instances. Excluding the above the bacterial count of 20 samples was very satisfactory:—An average of 24,000 per cc. and *B. coli* absent from 1/100 c.c.

“Pasteurized” Milk. Nine samples were taken for bacteriological examination. In every instance the count was below the 100,000 per cc. as laid down in the Regulations. The highest was 88,000, lowest 620., average 34,000. In three samples *B. coli* was present (in one the number exceeded 1,000 per cc.). These results must be regarded as very unsatisfactory. There is no standard for *B. coli* in “Pasteurised” milk, but if the process of pasteurization had been complete this organism ought not to have been present.

Eleven samples of ordinary milk were examined. Seven of these complied with the standard for “Grade A”; and four contained organisms and *B. coli* in excess of the Grade A standard.

PUBLIC HEALTH (CONDENSED MILK) REGULATIONS, 1923 and 1927.

Five “full cream sweetened” and three “machine skimmed unsweetened” were analysed and were found genuine. The “full

cream" contained the necessary 9% fat and 31% milk solids, and the "skimmed" contained the 21% prescribed amount of milk solids. All the samples were free from excess acidity, poisonous metals and chemical preservatives. The packages were correctly labelled and contained the required statement as to the equivalent quantity of milk.

PUBLIC HEALTH (DRIED MILK) REGULATIONS, 1923 and 1927.

The amount of dried milk sold in the City is inconsiderable. No samples were submitted for analysis. Inspections were made with respect to the labelling of the packages and these were found to be in compliance with the Regulations.

PRESERVATIVES IN FOOD REGULATIONS, 1925-6-7.

The following articles to which an allowed preservative may be added were examined during the year :—

Coffee extract 3; Jam 5; Lime-juice cordial 1;

Pickles and Sauces 3; Preserved fruit 3; Sausages 4.

Of the 19 samples three contained preservatives,—2 jam and the Lime-juice cordial. In each case the preservative was of the prescribed kind and the amount was considerably below that allowed by the Regulations. In one sample of sausage the analyst reported "a very small amount of Boric preservative" and suggested a caution as he "could not advise proceedings." Upon investigation it was found that a proprietary article had been used, and as soon as it was pointed out that it was not in accordance with the Regulations its use was discontinued. Further samples were found satisfactory. All samples submitted under the Sale of Food and Drugs Acts were examined for preservatives and were found to comply with the Regulations.

MERCHANDISE MARKS ACT, 1926.

Circulars calling attention to the provisions of the above Act were re-issued to traders. There were few instances of non-marking but several of incorrectly marked butter and tomatoes. In each case the vendors were cautioned. The requirements of the Act are now well known and there has been a general improvement in the marking of imported goods.

AGRICULTURAL PRODUCE (GRADING AND MARKING) ACT, 1928.

The various premises have been visited in connection with the marking of eggs and on the whole the provisions of the Act have been well observed. The Ice and Cold Storage premises are registered for the cold storage of eggs but no eggs were placed there during the year.

Offensive Trades. There are 31 Fish-frying establishments on the Register and 123 inspections of these premises were made during the year.

One application to establish a business was received, but as the premises were not completed the matter was deferred. Not one complaint as to the conduct of these businesses was received. On the whole they have been well conducted and free from nuisance. The tripe boiler's and gut scraper's premises were inspected and found in a satisfactory condition.

SLAUGHTER-HOUSES.

There are twenty private Slaughter-houses in the City, seventeen are registered and three are licensed for various periods. Fifteen are in regular use, and one, which has been licensed for a number of years has not been used as a slaughter-house but is held as a "reserve." Some of the older premises are becoming very dilapidated—one has partly collapsed—and the time is not far distant when the question of providing an abattoir or proper premises for the slaughter of animals must be considered. The bye-laws with respect to limewashing, cleansing, etc. for which notices were sent to the occupiers have been well observed.

No. of Slaughter-houses	...	...	20
No. in regular use	...	...	16
No. of inspections	...	...	2868
No. of notices to limewash, etc.	...	...	38
No. of notices to remedy defects	...	...	27
No. of notifications of change of occupier	...	...	1

Public Health (Meat) Regulations, 1924.

Under the above Regulations 15 notices of "occasional" slaughter were received. This killing usually occurs in the late evening but as far as possible every carcass was inspected. The re.

quirements of the Regulations, with one or two minor exceptions have been observed.

During the year the quantity of meat condemned as unfit for human consumption and destroyed was 5 tons, 2 cwt., 2 qrs., 6 lbs

SLAUGHTER OF ANIMALS ACT, 1933

This Act which came into operation on January 1st, 1934, made important changes in the law relating to the slaughtering of animals in Slaughter-houses, and to the licensing of slaughtermen.

In general every animal to be slaughtered must be instantaneously stunned so as to render it insensible to pain, by a mechanically propelled instrument. This includes an instrument for stunning by means of electricity. As bye-laws to the above effect have been in force in the City for several years past, this section of the Act makes little difference locally. The Act also provides that all slaughtermen must be licensed by the Local Authority. Licenses were granted to 47 applicants, 43 resident within the City and 4 from other districts. The licenses which are available throughout England and Wales were granted for a period of three years at a charge of 2/- each.

PUBLIC HEALTH (SMOKE ABATEMENT) ACT, 1926.

A bye-law made under this Act, limits the emission of black smoke to two minutes in the aggregate within any continuous period of thirty minutes. Forty-one observations of various chimneys were taken and in four instances after interviews with the engineers or owners improvements were effected. In no instance was the time limit of two minutes reached.

FACTORIES, WORKSHOPS AND WORKPLACES.

Notices were served for various defects in Factories and Workshops, several minor nuisances were abated without the service of a notice. Ten notices were received from H.M. Inspector of Factories with respect to insanitary conditions:—7 in Factories, chiefly relating to defective sanitary accommodation—and 3 in workshops. All the defects were remedied. The workshops generally were found to be well conducted; the unsatisfactory conditions noted were usually in

respect of small and unsuitable premises which had been converted into workshops.

Seven notices of occupation were received from H.M. Inspector.

Outworkers. Fourteen lists containing the names of 32 outworkers were received. Three firms notified the department that they had ceased to employ outworkers. The number of outworkers has been decreasing steadily for several years past.

No case of infectious disease was notified as occurring in the home of any outworker during the year.

INSPECTIONS.

No. of inspections :	Factories	...	...	...	61
„	„	Workshops	...	...	235
„	„	Workplaces	...	...	97

DEFECTS FOUND,

Want of cleanliness	...	...	...	...	12
„ ventilation	...	...	...	...	8
Overcrowding	...	...	...	...	1
Drainage of floors	...	...	...	...	6
Unsuitable or defective sanitary accommodation	...	...	...	...	9
Insufficient sanitary accommodation	...	...	...	...	4
Other minor nuisances	...	...	...	...	14
Notices received from H.M. Inspector—					
	<i>re</i>	Occupation	...	...	7
„	„	„ Defects in factories	...	...	7
„	„	„ Defects in workshops	...	...	3
Lists of outworkers received	...	...	...	...	14
No. of outworkers on lists	...	...	...	...	32

RAG FLOCK ACTS, 1911 and 1928.

Very few firms in the City appear to use rag flock in the manufacture of furniture. The amount used is not great and as it is purchased from manufacturers who certify that it complies with the requirements of the Acts, no samples were taken for examination during the year.

RATS AND MICE (DESTRUCTION) ACT, 1919.

The number of complaints received with respect to rat infestation was 197 ; and 838 visits were made to premises in connection with these complaints. The drains were tested and the sewers examined where these were suspected and any defects found were remedied. There is a good deal of indifference on the part of the general public. If householders and others exercised more care in the keeping of animals and the indiscriminate scattering of waste food, and also informed the Health Department as soon as traces of rats were found, the difficulty and expense in connection with this work would be reduced very considerably.

No special efforts were made during " Rat Week " in November. The work of investigation and extermination was carried on systematically throughout the year and many distinct improvements were effected.

**LIST OF FOOD CONDEMNED AS UNFIT FOR HUMAN CONSUMPTION
AND DESTROYED DURING 1933**

Meat, etc.				Weight in lbs.	Fish				Weight in lbs.
Bacon	...	...	...	11	Cod	...	...	...	14
Beef (English)	...	...	...	7478	Codling	...	...	...	22
Beef (Imported)	...	...	...	893	Dried Fillets	...	...	...	112
Cooked Corned Beef	...	...	...	12	Dried Haddock...	...	...	...	56
Ham	...	...	...	28	Kippers	...	...	...	72
Lamb (English)	...	...	...	18	Mixed Fish	...	...	...	112
Lamb (Imported)	...	...	...	40	Shrimps	...	...	...	18
Lamb's Livers (Imported)	...	...	...	10					
Mutton (English)	...	...	...	299					
Mutton (Imported)	...	...	...	49					
Pork (English)	...	...	...	2505					
Pork (Imported)	...	...	...	12					
Rabbits	...	...	...	17					
Tripe	...	...	...	10					
Turkeys	...	...	...	44					
Veal	...	...	...	60					
5 tons, 2 cwt., 2 qrs., 6lbs.					3 cwt., 2 qrs., 14lbs.				

Fruit and Vegetables				Weight in lbs.	Tinned Goods				No. of Tins
Apples (English)	...	...	...	112	Beef	...	...	...	6
Apples (Imported)	...	...	...	504	Condensed Milk	...	...	...	14
Lemons (1 case)	...	...	...		Peas	...	...	...	8
Peas	...	...	...	448	Sardines...	...	...	...	5
Plums	...	...	...	64	Soup	...	...	...	2
Tomatoes	...	...	...	112	Tomatoes	...	...	...	4
11 cwts, 0 qr., 8lbs.									

CASES OF INFECTIOUS DISEASE NOTIFIED AND REMOVED DURING 1933

Cases Notified	At all Ages		Under 1		1—2		2—3		3—4		4—5		5—10		10—15		15—20		20—25		25—35		35—45		45—55		55—65		65 and over		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Diphtheria	...	33	...	38	...	1	1	2	1	2	2	1	2	11	16	4	1	6	2	2	2	1	1	2	1	...	...	...	...
Scarlet Fever	...	98	...	109	...	1	2	1	6	9	13	11	7	49	45	18	23	2	1	6	3	1	3	4	...	...	...	2	2	3
Erysipelas	...	4	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	27	...	29	2	1	1	...	...	1	...	...	1	2	2	...	...	...	2	2	3	4	3	4	...	...	...	4	10	11
Ophthalmia Neonatorum	...	7	...	7	7	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...
Puerperal Pyrexia	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	3	...	1	...	...	...	...	...	...	...
Cerebro Spinal Fever	...	6	...	1	...	2	1	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Dysentery	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polio-Encephalitis	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis Pulmonary	...	51	...	46	...	...	...	...	...	...	...	1	2	2	5	6	6	...	7	5	10	11	8	7	5	...	6	6	3	1
"Other"	...	17	...	19	1	...	1	...	...	1	...	1	...	3	5	5	2	3	1	1	4	3	2	...	...	...	...	...	...	...
TOTAL NOTIFIED		243		271	9	9	6	6	4	7	12	16	14	13	68	71	38	35	12	13	10	22	17	26	21	19	12	10	7	9	13

Cases Removed to Hospital—†

* Diphtheria ...	40	38	...	1	1	2	1	2	1	2	1	2	14	13	6	2	6	3	2	3	1	1	1	...	...	...	...	...	...
Scarlet Fever ...	87	101	...	1	2	1	6	8	13	10	7	42	40	17	20	2	2	1	6	2	1	3	4	...	...	...	1	1	1
Other Cases ...	7	12	1	2	1	1	1	2	2	1	1	1	1	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL REMOVED	134	151	1	4	4	4	8	10	17	11	10	57	53	32	27	5	10	1	9	4	5	4	4	4	1	1	1	1	1

†Excluding Patients from outside the City Area

*Including twelve "carriers."

NOTE—A Summary of Statistics relating to Number of Notifications, Number of Deaths, Incidence and Death Rates of Infectious Diseases, will be found on page 7, an analysis of Deaths according to Age Periods on pages 62 and 63, and a further note in connection with the Notification of Tuberculosis on pages 39 and 40.

BIRTHS, DEATHS UNDER 1 YEAR, AND INFANT MORTALITY,
1933.

	Total			Legitimate			Illegitimate		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Births ...	375	375	750	358	359	717	17	16	33
Deaths (under one year) ...	24	15	39	23	12	35	1	3	4
Infant Mortality ..	64	40	52	64	33	49	59	187	121

OPHTHALMIA NEONATORUM.

Cases.			Vision Unimpaired	Vision Impaired	Total Blindness	Deaths
Notified	Treated					
	At Home	At Hosp.				
14	3	11	13	1	—	—

SUMMARY OF METEOROLOGICAL OBSERVATIONS

Taken at 9 a.m. G.M.T., at Henrietta Park.

1933		Jan.	Feb.	Mar.	Apl	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Temperatures.	Mean	37·1	41·0	46·7	49·0	55·4	61·2	64·9	64·4	60·0	51·4	43·3	34·8	50·8
	do. Average 30 yrs.	41·1	40·7	43·2	46·8	53·4	57·3	61·3	60·4	56·5	50·7	43·5	41·6	49·7
	Highest ...	55·0	55·9	67·6	69·3	72·9	84·9	87·1	85·4	81·1	68·3	56·0	46·6	87·1
	Date ...	2	5	28	7	23	6, 7	4	6	4	6	1	30	4 July
	Lowest ...	21·4	24·3	28·6	29·3	39·7	45·6	45·1	43·5	38·0	33·2	27·9	21·0	21·0
	Date ...	23	16	21	20	1	12	1	31	15	28	13	7	7 Dec.
Humidity...		85	83	78	74	72	66	73	72	79	84	87	84	78
Rainfall.	Total in inches ...	2·59	3·90	3·04	0·98	1·97	1·02	2·89	1·02	2·93	2·23	0·63	1·36	24·56
	No. Wet Days ...	14	16	16	10	13	9	13	9	14	15	8	8	145
	Mean of 65 yrs. ..	2·87	2·30	2·19	2·08	2·00	2·10	2·57	2·95	2·56	3·28	2·83	3·31	31·04
	do. Wet Days ...	15	14	14	13	12	11	13	14	13	16	15	17	167
Sunshine, hours ...		72·9	95·0	185·9	171·7	172·3	227·3	250·8	234·1	178·2	103·1	78·3	45·9	1815·5
Do. Mean of 30 yrs.		49·8	72·3	114·1	154·9	191·9	200·9	198·2	179·8	147·7	101·3	64·2	41·4	1516·6

DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.

CAUSES	Persons	M	F	—1		1—2		2—5		5—10		10—15		15—20		20—25		25—35		35—45		45—55		55—60		60—65		65—75		75—80		80—85		85—	
				M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
31 Cirrhosis Liver	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32 Other diseases of Liver, etc	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
33 Other digestive diseases	15	5	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34 Nephritis	44	16	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35 Bladder, Prostate, diseases	11	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36 Puerperal sepsis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37 Other puerperal causes	4	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38 Prematurity; Congenital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
39 Malformation, etc.	18	11	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
39 Senility	46	15	31	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40 Suicide	12	7	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
41 Other violence	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
42 Other defined causes	28	20	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43 Ill-defined	73	27	46	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
43 Ill-defined	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SPECIAL CAUSES:																																			
Polio-encephalitis	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL	989	426	563	24	15	5	3	4	4	3	4	...	...	7	3	9	5	16	16	22	23	34	35	28	33	33	42	113	135	53	77	48	83	27	85
1 Walcot North Ward	74	29	45	1	...	...	...	2	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Walcot South	57	23	34	...	...	1	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 St. Michael	57	32	25	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4 Lansdown	97	26	71	4	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5 Weston	73	29	44	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6 Kingsmead	87	46	41	4	4	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7 St. James	72	31	41	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8 Bathwick	91	34	57	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9 Widcombe	60	24	36	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10 Westmoreland	66	30	36	2	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11 Oldfield	56	26	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12 Lyncombe	90	42	48	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13 Twerton East	58	31	27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14 Twerton West	51	23	28	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Inward Transfers	52	18	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Outward Transfers	149	75	74	5	8	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Public Inst. Residents	323	158	165	12	9	5	2	2	3	2	2	...	...	5	3	5	13	6	12	11	14	16	12	16	13	13	32	43	15	14	13	15	3	11	

